

## CLAIMS

1. A declogging device (9) characterized with a chemical substance tank (10)  
5 which is filled with the cleansing chemical substance used to eliminate the clogging in the refrigeration cycle (1) where the refrigeration fluid circulates, a pressurized gas tube (11) which provides pressurized gas to the chemical substance tank (10) and a collection tank (13) where the cleansing chemical substance completed its cycle is collected.  
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2. A declogging device (9) as in Claims 1 characterized with a transmission pipe (12) which transfers the cleansing chemical substance to the refrigeration cycle (1), a pre-filter (19) which is used to filter the foreign matters mixed when the cleansing chemical substance is filled and a  
15 chemical substance tank (10) comprising an injection pipe (20) which provides a pressurized exit of the cleansing chemical substance from the chemical substance tank under sufficient pressure.
3. A declogging device (9) as in Claim 1 and 2 characterized with a chemical  
20 substance tank (10) comprising a chemical substance heater (22) which facilitates the transfer of the cleansing chemical substance.
4. A declogging device (9) as in Claim 1 characterized with a collection tank (13) comprising a collector pipe (14) which returns the cleansing chemical  
25 substance from the refrigeration cycle (1) and a final filter (21) which provides the reuse of the cleansing chemical substance by filtering the foreign matters after its circulation in the refrigeration cycle (1).
5. A declogging device (9) as in Claim 1 characterized with a pressurized gas  
30 tube (11) which comprises Nitrogen as a pressurized gas.

6. A declogging device (9) as in Claim 1 characterized with a chemical substance tank (10) which comprises Acetone as a cleansing chemical substance.
- 5 7. A declogging device (9) as in Claim 1 characterized with a chemical substance tank (10) which comprises Hexane as a cleansing chemical substance.
- 10 8. A declogging device (9) as in Claim 1 characterized with a chemical substance tank (10) which comprises Alcohol as a cleansing chemical substance.
- 15 9. A declogging device (9) as in Claim 1 characterized with a chemical substance tank (10) which comprises Chloroform as a cleansing chemical substance.
- 20 10. A declogging method for a declogging device (9) in any of the Claims above comprising the steps of the detachment of the compressor (2) and the dryer (5) from the refrigeration cycle (1) and split of the passage line (7) from the return line (8) for the preparation of the clogged refrigeration cycle (1) for the declogging process.
- 25 11. A declogging method for a declogging device (9) as in Claim 10 comprising the steps of the connection of the transmission pipe (12) and the collector pipe (14) to the passage line inlet (15) and the passage line outlet (16) respectively for the declogging of the passage line (7), transfer of the cleansing chemical substance from the substance tank (10) to the passage line (7) by opening the gas tube, in case it is not declogged, the increase of the pressure and/or the reverse pass of the cleansing chemical substance by connecting the transmission pipe (12) and the collector pipe (14) to the passage line outlet (16) and the passage line inlet (15)
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respectively, pass of certain amount of the cleansing chemical substance from the passage line (7) for the cleaning process, in case it is not cleaned sufficiently, leaving the cleansing chemical substance at the passage line (7) for a while and continuation of the pass of the cleansing chemical substance from the passage line (7) until it returns clean.

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12. A declogging method for a declogging device (9) as in Claim 10 or 11 comprising the steps of the connection of the transmission pipe (12) and the collector pipe (14) to the return line inlet (17) and the return line outlet (18) respectively for the declogging of the return line (8), transfer of the cleansing chemical substance from the substance tank (10) to the return line (8) by opening the gas tube, in case it is not declogged, the increase of the pressure and/or the reverse pass of the cleansing chemical substance by connecting the transmission pipe (12) and the collector pipe (14) to the return line outlet (18) and the return line inlet (17) respectively, pass of certain amount of the cleansing chemical substance from the return line (8) for the cleaning process, in case it is not cleaned sufficiently, leaving the cleansing chemical substance at the return line (8) for a while and continuation of the pass of the cleansing chemical substance from the return line (8) until it returns clean.

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